

## PERIODIC TABLE TEST GRAPH REVIEW

Answer the following questions based only on the three graphs on the graph handout.

Definitions: **Atomic Radius:** Distance from the nucleus to the outside of the atom

**Ionization Energy:** How much energy is needed to remove an electron from an atom.

**Electronegativity:** An atom's attraction for electrons.

- \_\_\_\_\_ 1. What is the atomic number of the element with the largest radius?
- \_\_\_\_\_ 2. What is the atomic number of the element the smallest ionization energy?
- \_\_\_\_\_ 3. What is the atomic number of the element with the lowest electronegativity?
- \_\_\_\_\_ 4. When the atomic radius is large, ionization energy and electronegativity are \_\_\_\_\_.
- \_\_\_\_\_ 5. What is the atomic number of the first element of the 3<sup>rd</sup> series on the periodic table?
- \_\_\_\_\_ 6. What is the atomic number of the last element in the third series on the periodic table?
- \_\_\_\_\_ 7. Look at the atomic radius graph. How does radius change between the beginning and end of the 3<sup>rd</sup> period? (refer to the elements in questions 5 and 6)
- \_\_\_\_\_ 8. Look at the ionization energy graph. How does ionization energy change between the beginning and end of the period? (refer to the elements in questions 5 and 6)
- \_\_\_\_\_ 9. Look at the electronegativity graph. How does electronegativity change between the beginning and end of the period? (refer to the elements in questions 5 and 6)
- \_\_\_\_\_ 10. What second period element does not have an electronegativity because it has FULL VALENCE SHELL.
- \_\_\_\_\_ 11. Find elements 3 and 10. How does atomic radius change between them?
- \_\_\_\_\_ 12. Find elements 1,3,11,19. Are these elements in the same family or in the same period?
- \_\_\_\_\_ 13. How does the size change between elements 1,3,11,19?
- \_\_\_\_\_ 14. How does size change as you move down a family?
- \_\_\_\_\_ 15. How does ionization energy change between elements 1,3,11,19?
- \_\_\_\_\_ 16. How does ionization energy change within a family?
- \_\_\_\_\_ 17. Find the elements sodium through argon on the ionization energy graph. Does the ionization energy generally increase or decrease between these elements?
- \_\_\_\_\_ 18. What element on the electronegativity graph has the most attraction for electrons?
- \_\_\_\_\_ 19. What element on the electronegativity graph has the least attraction for electrons?
- \_\_\_\_\_ 20. From which element on the ionization energy graph is it easiest to remove an electron?